Memory Access System Providing Increased Throughput Rates When Accessing Large Volumes of Data

Abstract

Enhancing the throughput rate of a memory access system by using store and forward buffers (SFB) in combination with a DMA engine. According to an aspect of the present invention, the worst case throughput rate (without use of SFBs) is computed, and maximization factor equaling a desired throughput rate divided by the worst case throughput rate is computed. A number of SFBs is determined as equaling one less than the maximization factor. By placing the SFBs at appropriate locations in the data transfer path, the desired throughput rate may be attained when transferring large volumes of data.